



# COMPARATIVE STUDY OF ECOLOGICAL ATTITUDE OF RURAL AND URBAN SENIOR SECONDARY SCHOOL STUDENTS OF DISTRICT TEHRI AND PAURI OF UTTARAKHAND

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## ABSTRACT

Ecology is the study of the interactions between biotic organisms and their environment. Ecological attitudes are related to ecological issues and problems. Different anthropogenic activities creates a number of environmental problems like pollution, soil erosion, green house effect, ozone layer depletion, global warming and degradation of natural resources. All these human created changes are responsible for global climate change. Increasing urbanization and industrialization creates a number of environmental problems and crises. These activities have disturbed the ecological balance and have resulted in loss of natural resources and extinction of flora and fauna. Therefore environmental equilibrium has to be maintained through environmental awareness and education programs. With the help of proper interaction between environment and human beings we can maintain environmental equilibrium.

**KEY WORDS:** Ecological attitude, senior secondary, environmental equilibrium.

## INTRODUCTION:

Widespread and systematic concern for environmental issues has grown the world over particularly after the 1960s. Environmental education is equally significant and is the need of our which raises awareness, increase knowledge and help change attitude and behavior of the people. Environmental education may help many people to change behavior towards more environment friendly practices (Maikhuri and Maikhuri, 2003). Value based education thus has a very significant role in providing proper direction to our youth. It teaches them to be compassionate, helpful, peace loving, generous and tolerant so that they can move towards a more harmonious, peaceful, enjoyable and sustainable future. (Kaushik and Kaushik, 2006). Environmental awareness and understanding among the people are, at ones, consequences of environmental educational process. Curriculum in educational institutions would necessarily change with the support of well- informed people. (Sharma, 2003). Ecological attitudes are related to ecological problems. Environmental values, the relationship between the environment and society, and perceptions of natural source consumption directly affect over all environmental balance (Dunlap and Van Liere, 1978).

## Hypothesis:

The null hypothesis was formulated:

1. There is no significant difference between senior secondary level students of district Tehri and district Pauri in respect to locality (rural/urban students), in respect to their level of ecological attitude.

## REVIEW OF RELATED LITERATURE:

Most of the ecological and environmental attitude studies have been conducted since 1970 when conceptualization of environmental attitudes as a scientific research concept gained closer attention by researchers (Dunlap and Van Liere, 1978). Shahnawaj (1990) and Sabhlok (1995) in their investigations concluded that urban students possessed higher awareness about environment than rural students. Gupta et.al. (1981) studied environmental awareness among the students of rural and urban schools and non formal education centres. Muttaqui (1981), Shukla (1986), Shahnabaz (1990), Sharma (1991), Patel (1997) and Bisht (2009) conducted their investigations on environmental related issues and the findings of their studies suggested that sex was an important factor in determining the level of environmental awareness of the students. Muttaqui (1981) in his study found that rural students possessed significantly less ecological knowledge than the urban students. Shukla (1986) conducted research to compare the impact of socio-economic status of students on environmental awareness. Kukreti et.al. (2006) in their study revealed that in comparison of arts, and commerce students the students of science stream were found more aware about different environmental issues. Saxena (2008) has made an attempt to study the environmental consciousness among students and found that in comparison to the students of urban areas the students of rural background were found more conscious about environmental pollution and hazards. Bajpai and Mishra (2009) and Tiwari (2009) in their studies expressed their views on the impact of environmental pollution on global warming and awareness of students regarding global warming. Maikhuri and Uniyal (2008) studied the environmental awareness among the students of higher education in Garhwal region and revealed a positive impact of classroom environmental education on the environmental awareness of the students.

## METHODOLOGY:

### Population of the Study:

The present study was conducted in district Tehri and Pauri Garhwal of Uttarakhand state. All students studying in XI and XII classes were considered as the population of the study.

### Sample and sampling technique:

In the present investigation, a sample of 400(200 rural and 200 urban) was selected randomly from different rural and urban schools of district Pauri and Tehri Garhwal.

### Tool Used:

Ecological Attitude and Cognitive Scale (EACS): For the collection of data related to; ecological attitude; ecological attitude and cognitive scale (EACS) was used. This scale was developed and standardized by Rajamanickam (1999). It consists of 40 items. It can be administered on any population either individually or in groups within a period of 30 minutes. It is satisfactorily reliable and valid scale. This 40 item ecological attitude and cognitive scale consists of four sub-scales such as (1) Oral Obligation Scale. (2) The Real Obligation scale (3) the Emotional Obligation scale, and (4) the Cognitive scale.

### Administration of the Tool and Collection of Data:

The data was tabularized as per the objectives of the study.

### Statistical Techniques Used:

To test the null hypothesis the Mean and S.D. values was calculated and to compare the sub group of the sample 't' test was calculated.

### Delimitation of the Study:

The study was delimited to the various institutions located in district Tehri and Pauri of Uttarakhand.

### Analysis and Interpretations:

The data was analysed and interpreted using the 't' test technique to achieve the objectives and verifying the hypotheses of the study.

**Table- 1**  
**Mean and SD Scores of Urban and Rural Senior Secondary students of Tehri district on different dimensions of Ecological attitude and Cognitive Scale (EACS).**

S.N.	Dimensions of EACS	Urban Students (N = 100)		Rural Students (N=100)		't' Value (df=198)
		Mean	SD	Mean	SD	
1.	Oral Obligation	6.62	1.91	6.32	1.57	1.07
2.	Real Obligation	7.4	1.38	6.74	1.34	4.8**
3	Emotional Obligation	7.26	1.40	6.74	1.57	3.7**
4.	Cognitive Aspects	6.58	1.75	5.79	1.67	4.5**
5.	Overall EACS	27.86	6.44	25.59	6.15	3.9**

\*\* Significant at 0.01 level of significance

**Table- 2**  
**Mean and SD score of Urban and Rural Senior secondary students of Pauri district on different dimensions of Ecological attitude and Cognition Scale (EACS).**

S.N.	Dimensions of EACS	Urban Students (N = 100 )		Rural Students (N=100)		't' Value (df=198)
		Mean	SD	Mean	SD	
1.	Oral Obligation	7.41	1.28	6.93	1.67	3.78**
2.	Real Obligation	7.36	1.36	7.02	1.74	2.53*
3.	Emotional Obligation	6.95	1.79	6.53	1.73	2.37*
4.	Cognitive Aspects	7.12	1.27	7.02	1.34	0.81
5.	Overall EACS	28.84	5.7	27.5	6.48	2.77**

\*\* Significant at 0.01 level of significance.

\*Significance at 0.05 level of significance.

## RESULTS AND DISCUSSION:

From the data displayed in table-1 it is clearly evident that there seems significant difference between rural and urban senior secondary students of Tehri district on different dimensions of ecological attitude and cognitive scale i.e. real obligation ( $t=4.8$ ), emotional obligation ( $t=3.7$ ), cognitive aspects ( $t=4.5$ ) at 0.01 level of significance, while no significant difference was found only in one dimension i.e. oral obligation ( $t=1.07$ ). Overall a significant variation was found between rural and urban senior secondary students of Tehri district ( $t=3.9$ ) at 0.01 level of significance. From the results of table-2 it can be concluded that there is significant variation between rural and urban senior secondary students of Pauri district on different subfactors of EACS scale i.e. oral obligation ( $t=3.78$ ), real obligation ( $t=2.53$ ), and emotional obligation ( $t=2.37$ ), while no significant difference was found in dimension cognitive aspects ( $t=0.81$ ). Over all a significant variation was found ( $t=2.77$ ) at 0.01 level of significance.

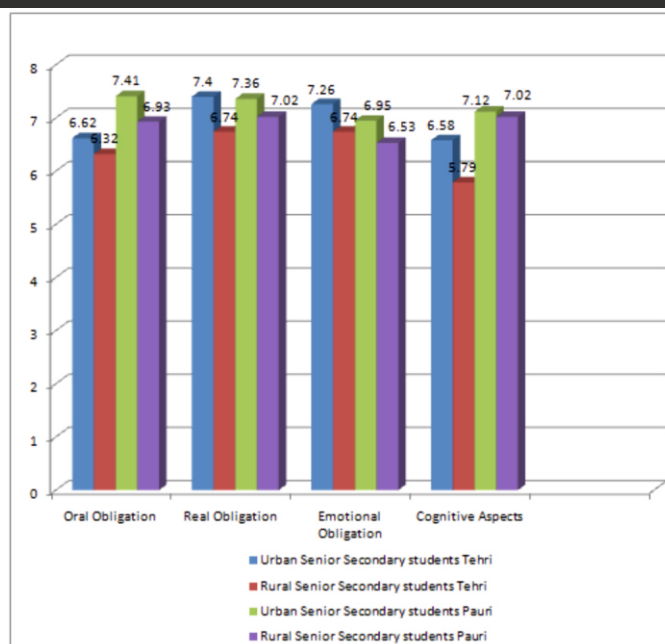
Comparative study of both the table shows that urban senior secondary students of Pauri district scored higher mean value (28.84) than urban students of Tehri district (27.86), while rural students of Pauri district also scored higher mean value (27.5) than rural students of Tehri district (25.59). Overall significant variation was found in both the district.

## FINDINGS:

The null hypothesis that there is no significant difference between senior secondary level students of district Tehri and Pauri in respect to their locality (rural/urban, students), in respect to their level of ecological attitude is partially rejected and partially accepted.

The findings related to above hypothesis are as follows:

- 1.1. A significant difference was found between rural and urban senior secondary students of Tehri district on dimensions- real obligation, emotional obligation, and cognitive aspects as well as on overall ecological attitude at 0.01 level of significance.
- 1.2. No significant difference was found between rural and urban senior secondary students of Tehri district on dimension- oral obligation.
- 1.3. Urban senior secondary students of Tehri district had scored higher mean scores than their rural counterparts in all the dimensions of EACS.
- 1.4. In the case of rural and urban senior secondary students of Pauri district a significant variation was found on dimensions-oral obligation (at 0.01 level), real obligation, and emotional obligation (at 0.05 level) as well as on overall ecological attitude at 0.01 level of significance.
- 1.5. No significant difference was found between rural and urban secondary students on dimension- cognitive aspects.
- 1.6. Urban senior secondary students had scored higher mean scores as compared to rural senior secondary students.



**Figure.1 Comparative Ecological Attitude between Senior Secondary School Student of Tehri and Pauri District.**

## REFERENCES:

1. Bajpai, V.K., and Mishra, M.M. (2009). Environmental awareness: need and approaches, paper presented in the national seminar on global warming: its impact on Indian economy, organised by GUPG College Baheri, during 15-16 March, 2009.
2. Bisht, Rekha, (2009). Effect of video-intervention strategy on environmental orientation and ethics towards environment among the students of secondary schools. Ph.D. Thesis submitted to H.N.B.G. University Srinagar Garhwal. pp.1-182.
3. Dunlap, Riley E and Kent D. Van Liere, (1978). "The new environmental paradigm." Journal of Environmental Education.9 (summer):10-19.
4. Gupta, B.I., Grewal, J.S., and Rajput, (1981). A study of the environmental awareness among children of rural and urban schools and non-formal education centre, III survey of research in education, M.B.Buch, 1978-83, page 537.
5. Kaushik Anubha and Kaushik C.P., (2006). Perspectives in Environmental Studies. Second Edition. New Age International P.Ltd. Pub.pp.280.
6. Kukreti, B.R., Gihar, S and Saxena, M., (2006). Environmental Orientation: Review of some Alternative Strategies, University news, vol.44.no. 12, pp.49-55.
7. Maikhuri R.K. and Maikhuri Rama, (2003) - Environmental Problems and Issues in Uttaranchal: Need of Science and Technology Interventions and Environmental Education for Development- 20th Convention of Indian Association of Sedimentologists (IAS-XX). Deptt. Of Geology, Srinagar Garhwal. Pp.36-45.
8. Maikhuri, R. and Uniyal, N.P., (2008). Environmental awareness among students, Indian Journal of Psychometry and Education, vol.39 (1), pp.24-28.
9. Muttaqi, I.A., (1981). Development of a curriculum in biology for secondary schools of Bangladesh, Ph.D., Edu.MSU.
10. Patel, N.D. (1997). An investigation in to environmental awareness of secondary school students and effect of environmental study multimedia package on environmental awareness. The Progress of Education. Vol.LXXII, pp.37-44.
11. Rajamanickam, M., (1999). Manual for Ecological attitude and Cognitive scale. Psycho-educational Testing centre, C2A/16/108/Janakpuri, New Delhi, pp.1-32.
12. Saxena, M., (2008). Level of Awareness of Environmental Pollution among Rural and Urban Women and Educational Implications, Experiments in Education. Vol.XXXVI, No.3, pp.105-107.
13. Sabhlok, R., (1995). A study of the awareness and attitude of teachers and students of high school toward environmental education in Jabalpur district. Ph.D. thesis (Unpublished) Ani Dugavati Vishwavidyalaya, Jabalpur (1995).
14. Shah Nawaz, (1990). A study of environmental awareness and attitude (towards environmental issues) of secondary and higher secondary school teachers. Ph.D. Thesis, University of Rajasthan.
15. Sharma, Ghanshyam, (1991). Analytical study of Attitude and Aspirations towards Environmental Education. M.Ed. dissertation, Ajmer, University Ajmer.
16. Sharma (2003): Environmental Education, Publishing Co., New Delhi pp.121-125.
17. Shukla, Anil, (1986). Awareness related to environmental education among students of Graduation level, M.Ed. dissertation of Sukhadia University Udaipur.
18. Tewari, R., (2009). Pollution of environment and global warming. Paper presented in the national seminar on global warming: Its impact on Indian economy organised by GUPG College Baheri, during 15-16 March.
19. UNESCO (1972). The Stockholm Declaration. The United Nations Conference on the Human Environment, 5-16 June, Stockholm.